NATIONAL PUBLIC HEALTH PERFORMANCE STANDARDS PROGRAM
ARIZONA

FINAL REPORT
JULY 10, 2008

HILARY TABISH
ROSALINDA CASTANEDA

Letter from the Director

I am eager and excited to present to you the Arizona Public Health Performance Standards Report 2008. I would like to thank the individuals and organizations across the state who participated in this process to assess the Arizona public health system against a new set of national public health performance standards.

Preventing illness and improving health, while working towards the equitable distribution of health services, are complex and long-term challenges. A strong public health system is critical to meet these challenges. Yet measures have never been put in place to ensure accountability and optimal system performance. Therefore, the Centers for Disease Control and its partners have developed standards to enable health systems to assess their work in an effort to: (1) identify areas for system improvement, (2) strengthen collaboration with partners, and (3) assure effective responses to routine health issues and emergencies. The hypothesis supporting this work suggests that stronger and more equitable public health systems will increase access to public health services, therefore improving health outcomes. It is important to note that for the purpose of this assessment, the "public health system" is broadly defined and includes health providers, as well as "upstream" stakeholders such as the education system, police and fire departments, and social service agencies.

The Arizona Department of Health Services sees the value in applying a set of performance standards to its own work, and therefore decided to take a leadership role in conducting an assessment of the state public health system. This was done in an effort to improve collaboration across health system partners and to work towards more effectively and efficiently using the system's scarce resources to improve the health of all Arizonans. The results of this assessment illustrate that we at ADHS, together with our system partners, have a lot of work to do to meet the optimal level of performance for our state public health system. For example, while the system ranked highest for its work in diagnosing and investigating health problems and hazards, it ranked lowest in evaluating health services.

The purpose of this exercise was not only to illustrate our relative strengths and weaknesses, but more importantly, to establish a benchmark from which to prioritize our work, improve partnerships, and measure improvement over the long-term. In addition to our role in providing leadership to the public health system in Arizona, we are interested in working towards preparing for the voluntary national accreditation program. In 2011, a set of performance standards are expected to be implemented as the basis for determining the performance of state and local health departments. This assessment, and the opportunities for improvement that it has illuminated, will be critical input to our work towards systematically preparing for accreditation of our health department and improvement to our state and local public health systems.

I am confident that this report will be an impetus for public health improvement across the State.

I would like to reiterate my gratitude to all of the participants, and their respective organizations, who generously donated their time to this very important endeavor.

This is not the end of a process. Rather, it is the beginning of a new and strengthened public health system for Arizona and all the people we serve.

Susan Gerard
Director

Executive Summary

The Centers for Disease Control (CDC) and its partners developed the *National Public Health Performance Standards Program* in an effort to enable health systems to assess their work by: (1) identifying areas for system improvement, (2) strengthening collaboration with partners, and (3) assuring effective responses to routine health issues and emergencies.

The Arizona Department of Health Services (ADHS) used the CDC's tool to assess the state public health system in April 2008. This tool is designed to examine the work of the entire public health system defined as "all public, private, and voluntary entities that contribute to public health activities within a given area of work." The score for the overall performance of the state public health system in Arizona was 46 out of 100, which is consistent with the scores from other states.

A few highlights from the assessment results include:

- the highest ranking service provided by the system is: "diagnosing and investigating health problems and hazards";
- the lowest ranking service provided is: "evaluating the effectiveness, accessibility and quality of personal and population-based health services";
- the health system's relative strength across all services provided is in the area of "Planning and Implementation"; and
- more work needs to be done to invest in and effectively utilize the human, information, technology, organizational and financial resources to improve the public health system.

This report provides a summary of the assessment results. ADHS views these results as relevant and informative to our work in the area of quality improvement and beyond. Therefore, it is our hope that these results will be used by all stakeholders in the Arizona public health system to focus attention and resources on the areas of greatest need, in an effort to improve the health of all Arizonans.

Acknowledgements
We are grateful to the following organizations and individuals that donated their time to this endeavor.

- American Heart Association
- Arizona Association of Community Health Centers
- Arizona Criminal Justice Commission
- Arizona Department of Corrections
- Arizona Department of Environmental Quality
- Arizona Department of Health Services
- Arizona Health Care Association
- Arizona Health Care Cost Containment System (AHCCCS)
- Arizona Public Health Association
- Arizona State Board of Nursing
- Arizona State University
- Arizona Women's Education & Employment, Inc.
- Asian Pacific Community in Action
- Banner Health
- BlueCross BlueShield of Arizona
- Center for Health Enlightenment Enrichment Empowerment Renewal Services
- Children's Action Alliance
- Cochise County Health Department
- Coconino County Health Department
- Community Partnership of Southern Arizona
- Department of Economic Security, Division of Aging and Adult Services
- Donna Baker Miller, Independent Health Consultant
- Government Information Technology Agency
- Governor's Office for Children, Youth & Families
- Grand Canyon University
- Greenlee County Health Department
- Inter Tribal Council of Arizona, Inc.
- Maricopa County Department of Public Health
- Mariposa Community Health Center
- Mohave County Department of Public Health
- North Country HealthCare
- Phoenix Area Indian Health Service
- Phoenix Fire Department
- Pinal-Gila Council for Senior Citizens
- Planned Parenthood
- Recorders Maria Elena Gamez, Kailee Hart, Jesse Lewis, and Courtney Ward
- Southwest Ambulance
- St. Luke’s Health Initiative
- Sue Davis, Family Member at Large
- The American Academy of Pediatrics, Arizona Chapter
- The Virginia G. Piper Charitable Trust
- Tucson Area Indian Health Service
- University of Arizona, Mel and Enid Zuckerman College of Public Health

SECTION I: OVERVIEW

INTRODUCTION

In an era where chronic disease is rising, the population is aging, and bioterrorism is becoming a growing threat, there is increased pressure at the state and local level to improve the performance of health systems. Thus, to assist states in meeting this challenge, the Centers for Disease Control and Prevention (CDC) and partners developed an assessment to consider the health system's competency in delivering the 10 Essential Public Health Services (see Box 1). The assessment tool asks the question: What are the components, activities, competencies and capacities of the public health system?

These performance standards are an initial building block of a CDC-spearheaded improvement process to "accredit" state departments of health. Despite the fact that public health departments are a critical component of health systems, they are not required to maintain a set of performance standards, which is the case for hospitals, educational institutions, and law enforcement agencies. It is anticipated that adherence to such standards would assist in improving performance across the tasks departments of health perform and oversee, and ultimately would enhance the nation's public health systems.

In order to proactively prepare for this voluntary national accreditation program on the horizon for 2011, the Arizona Department of Health Services (ADHS) conducted an assessment of the state public health system in April 2008. Using the *National Public Health Performance Standards Program (NPHPSP)* state instrument which is used as a tool to assist states in preparing for accreditation, 61 stakeholders (see Appendix I) participated in the first-ever assessment of the Arizona public health system. This report provides a summary of the results. It is our hope that the results are viewed as an opportunity to inform subsequent quality improvement activities for ADHS and its partners in the state public health system.

WHAT IS THE NATIONAL PUBLIC HEALTH PERFORMANCE STANDARDS PROGRAM (NPHPSP)?

The mission of this program is "*to improve the quality of public health practice and performance of public health systems"* by:[1]

- providing performance standards for public health systems;
- improving quality and accountability of public health practice;
- conducting systematic collection and analysis of performance data; and
- developing a science-base for public health practice improvement.

The NPHPSP was developed in collaboration with seven national partners:

- Centers for Disease Control and Prevention, Office of Chief of Public Health Practice,
- American Public Health Association,
- Association of State and Territorial Health Officials,

[1] National Public Health Performance Standards website viewed on June 10, 2008 at: http://www.cdc.gov/od/ocphp/nphpsp/overview.htm

- National Association of County and City Health Officials,
- National Association of Local Boards of Health,
- National Network of Public Health Institutes, and
- Public Health Foundation.

The NPHPSP is based on the 10 Essential Public Health Services (EPHS). In 1994 the U.S. Department of Health and Human Services put forth these services in an effort to describe the public health activities that should be conducted in all states and respective communities. The NPHPSP provides a framework to assess capacity and performance of a public health system in carrying out the 10 EPHS. A *public health system* is defined as: "comprised of all public, private, and voluntary entities that contribute to the health and well-being of a community or state."[2] This broad definition includes public health departments and health providers, as well as "upstream" stakeholders who ultimately have a significant impact on health such as: police and fire departments, schools, and a myriad of other government and non-governmental health and human service providers.

Box 1

10 Essential Public Health Services

1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure a competent public health and personal health care workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population based health services.
10. Research for new insights and innovative solutions to health problems.

Four Concepts of NPHPSP

The NPHPSP is organized into four Model Standards that comprise the following key concepts:

1. 10 Essential Public Health Services;
2. focus on the overall public health system, (i.e., not just ADHS);
3. optimal level of performance; and
4. intention to support and stimulate a process of quality improvement.

The NPHPSP has been used by approximately 23 states to: (1) identify areas for system improvement, (2) strengthen state and local partnerships, and (3) help answer the question, "How well are we delivering the Essential Public Health Services in our communities?" The Model Standards describe an optimal level of performance and are intended to stimulate higher levels of achievement with a continual focus on

[2] Centers for Disease Control. 'National Public Health Performance Standards Program User Guide,' 2007.

improvement. It was anticipated that the NPHPSP state instrument would assist ADHS and system partners in identifying the strengths and weaknesses of the state public health system (SPHS) and illuminate areas for improved collaboration.

The Model Standards
The state instrument is divided into 10 sections, each one representing one essential public health service. The tool is designed so that each of the 10 EPHS are assessed based on four Model Standards, for a total of 40 Standards. These model standards describe elements of an optimally performing public health system. The following are the Model Standards:

1. **Planning and Implementation** – focuses on collaborative planning and implementation of key activities to accomplish the EPHS.

2. **State-Local Relationships** – examines the assistance, capacity building, and resources the state public health system provides to local public health systems in efforts to implement the EPHS.

3. **Performance Management and Quality Improvement** – focuses on the state public health system's efforts to review the effectiveness of its performance and the use of these reviews to continuously improve performance.

4. **Public Health Capacity and Resources** – examines how effectively the state public health system invests in and utilizes its human, information, and organizational resources.

The assessment instrument was tested extensively and underwent validation studies, after which a second version was developed. The second version was used in Arizona. For further information on the instrument and all aspects of the NPHPSP, please see: http://www.cdc.gov/od/ocphp/nphpsp/overview.htm.

Scoring System
Participants received five color-coded voting cards and one "discussion" card. The voting process recommended by the NPHPSP User Guide was followed, in which participants raised a colored card to specify their response to each question. Median scores were calculated after all sessions were complete.

Understanding data limitations
The scores reported here are composite scores. In other words, each Essential Service receives one score which is a weighted average based on the scores for the four Model Standards and their respective questions. Thus, the composite score is meant to indicate, in general, the extent of work being implemented by the public health system for each Essential Service. The average scores do not reflect the qualitative comments, which are an essential supplement and must be considered in future planning and improvement efforts.

While every effort was made to be as inclusive as possible, the entire public health system was not represented. It should be noted that performance scores represent the perspectives and judgments of those participants in attendance, introducing an element

of subjectivity, which was attempted to be minimized by hiring one facilitator for all 10 sessions. Lastly, there were differences in knowledge about the public health system across the panels of participants, which may have led to a difference in the interpretation of each assessment question, potentially introducing a degree of random non-sampling error.

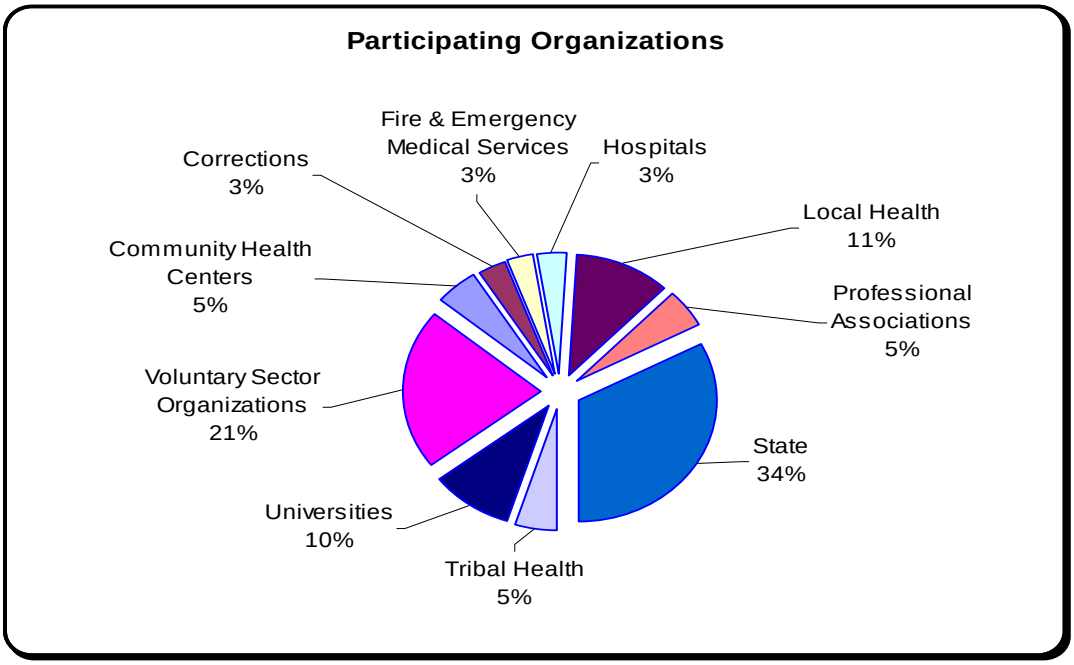
Because of these limitations, the data are meant to be used for the purpose of quality improvement, and specifically to guide an overall public health infrastructure and performance improvement process. It is essential to note that these data represent the collective system and should not be interpreted to reflect the capacity or performance of any single entity.

THE NPHPSP IN ARIZONA

The goals of the state public health system assessment were to:

- obtain a baseline measure of performance to assess Arizona's state public health system in comparison to the Model Standards;
- strengthen partnerships among public health system stakeholders;
- position Arizona to work towards meeting the anticipated accreditation expectations by 2011; and
- generate data to inform strategic planning at ADHS.

The assessment was structured into five group sessions (each group provided input into two Essential Services) with a professional facilitator who led the discussion and subsequent voting process. Efforts were made to identify a representative and diverse group of state public health system partners. Specifically, potential participants were identified by ADHS staff and 61 people were selected based on their role in the public health system, expertise, and organizational affiliation. For a full list of participating organizations, see Acknowledgements on page 3.



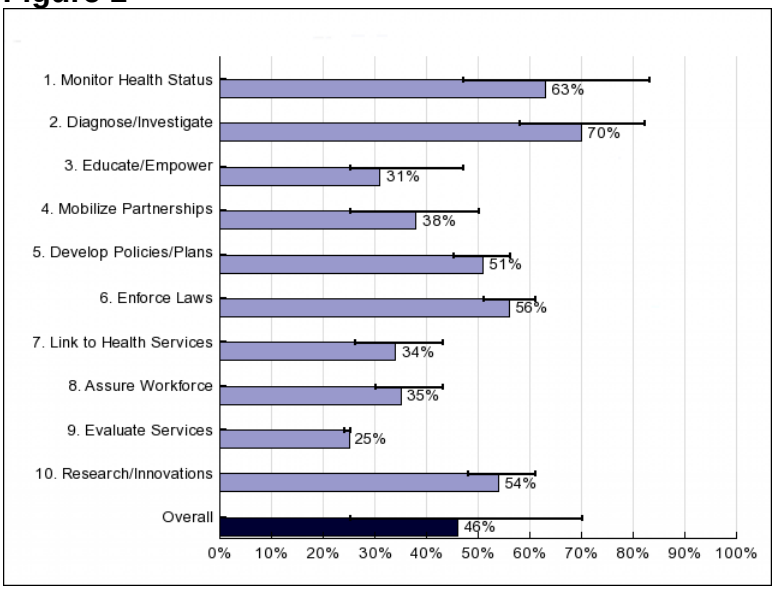
SECTION II: SUMMARY OF RESULTS

Quantitative Results

The score for the overall performance of the State Public Health System in Arizona was 46 out of 100. According to the scale used for analysis, this indicates that, on average, the system performs a "moderate amount of activity" when considering all 10 EPHS.

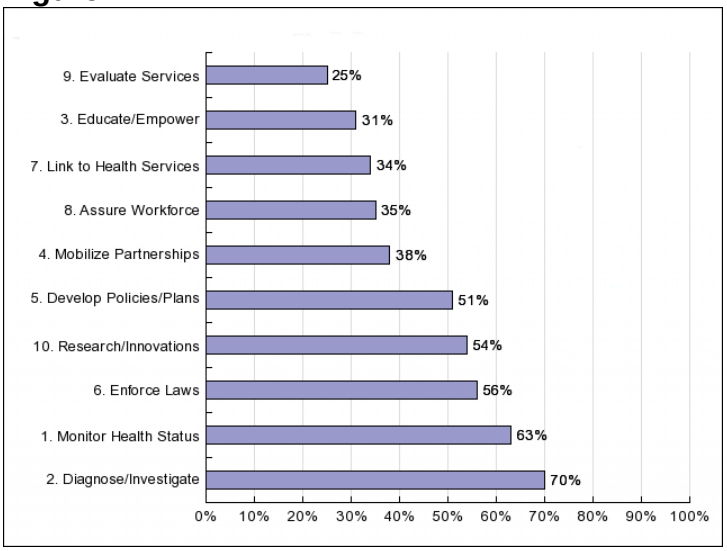
It is important to reiterate that these scores reflect the performance of the entire public health system defined as "all public, private, and voluntary entities that contribute to public health activities within a given area of work." Figure 1 below illustrates the performance score for each EPHS. The bars represent the range of the minimum and maximum values of responses.

Figure 1



The next figure is a rank ordering of the EPHS. It displays each composite score from low to high and illustrates for which Essential Service performance is relatively strong or weak.

Figure 2



The last figure is a summary of the average scores for each Model Standard from all 10 EPHS. The data show that the SPHS' relative strength is in the area of "Planning and Implementation," whereas it is weaker in "Evaluation & Quality Improvement" and "Capacity and Resources."

Figure 3

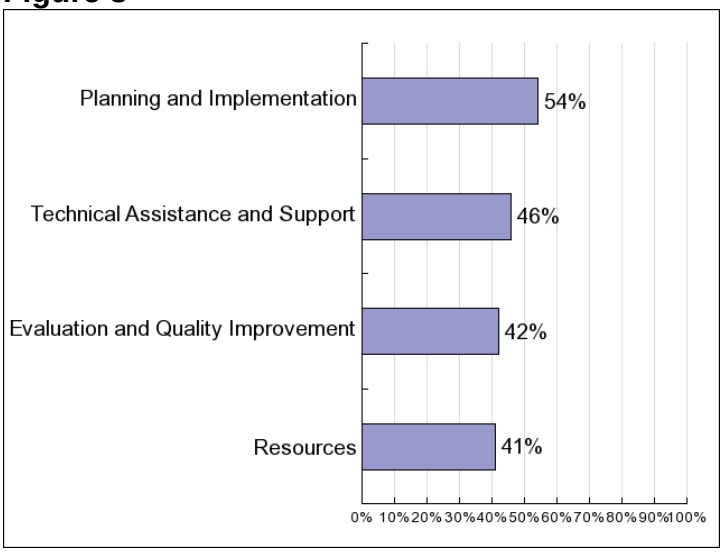


Figure 3: Summary of average scores across Model Standards

As illustrated in figures one and two, whereas the highest ranking service is "diagnosing and investigating health problems and hazards," the lowest is "evaluating the effectiveness, accessibility and quality of personal and population-based health services." Further, the key findings indicate that more work needs to be done to invest in and effectively utilize the human, information, technology, organizational and financial resources to improve each of the 10 EPHS.

These scores are meant to provide a broad indication of the relative strengths and weaknesses of the Arizona Public Health System. As such, they are intended to be used for continuous quality improvement of the system as a whole. There are two factors that introduce potential bias into these scores and should be kept in mind while interpreting the results. First, the data limitations previously described. Second, some of the EPHS are better resourced than others, which affect their performance scores. In sum, the scores reflect the average level of performance for a given Model Standard and therefore do not point to specific actions for which certain system partners are relatively strong or weak.

Qualitative Results

The assessment tool generated a lot of discussion for each EPHS. It is critical that these comments be considered in conjunction with the quantitative results when moving forward to identify opportunities for action. The comments have been summarized and categorized into strengths and weaknesses as shown below.

Strengths:

- There are many dedicated and talented individuals in Arizona working to improve the health of Arizonans.
- Technical assistance is available in most of the Essential Service areas.
- A plethora of public health activities are being implemented for the majority of the 10 Essential Health services.
- An abundance of valuable information on the status of public health in Arizona and approaches to improve health services is being produced at the universities, state and county health and social service agencies, foundations. and not-for-profit entities.
- Protocols and capacity (human and infrastructure) to initiate enhanced surveillance in the event of a health emergency/threat exist.

Weaknesses:

- Coordination across entities (i.e. laboratories, hospitals, state/county departments of health, non-governmental organizations, etc.) is insufficient.
- In many cases there is a lack of timeliness in disseminating reports and therefore valuable information is underutilized.
- In too many cases programs do not target specific populations (whether these are at-risk, marginalized, a certain age group, etc.) and therefore are not designed effectively nor do they reach the groups that are most in need.
- Reviews of the effectiveness of programs, protocols, and policies are not routinely conducted due to lack of funding or staff time (except in cases where such reviews are mandated such as by licensure or the funding source).
- Information technology is not leveraged to maximize timely electronic exchange of data and information (in some cases exchange of data between ADHS and hospitals is an exception).

SECTION III: DATA: PARTICIPANT OBSERVATIONS

The next section describes the Model Standards and corresponding scores, in addition to the strengths and weaknesses for each Essential Service. The following is the scale used for analysis:

Number of Points	Extent to which Model Standard was met
NO ACTIVITY	O% or absolutely no activity.
MINIMAL ACTIVITY	Greater than zero, but no more than 25% of the activity described within the question is met.
MODERATE ACTIVITY	Greater than 25%, but no more than 50% of the activity described within the question is met.
SIGNIFICANT ACTIVITY	Greater than 50%, but no more than 75% of the activity described within the question is met.
OPTIMAL ACTIVITY	Greater than 75% of the activity described within the question is met.

EPHS #1: Monitor Health Status to Identify Health Problems		
OVERALL SCORE: 63%	**RATING: Significant activity**	**RANK: 2 of 10**

Model Standard	Score
1. Planning and Implementation: Measures, analyzes and reports on the health status of the population by: • collecting data to measure health status; • producing a state health profile; • operating a data reporting system on disease & health threats; and • protecting personal health information.	83% Optimal activity
2. State-Local Relationships: Provides assistance, capacity building, and resources to local health systems to monitor health status and identify health problems by providing: • technical assistance in the interpretation & use of local data; • data to local entities & assisting in its application; and • assistance in developing information systems for monitoring health status at the local level.	58% Significant activity
3. Performance Management and Quality Improvement: Reviews the effectiveness of its efforts to monitor health status and uses the results for continuous quality improvement of monitoring efforts.	63% Significant activity
4. Public Health Capacity and Resources: Manages resources to monitor health status by: • committing financial resources; • leveraging state assets; and • capitalizing on a workforce skilled in collecting & analyzing data, as well as managing data systems.	47% Moderate activity

"Monitoring health status to identify health problems" ranked number two among all EPHS.

Strengths

There were two perfect scores indicating the activities were fully met. These are:

- state health profile produced, and
- compliance with confidentiality laws.

Both activities pertain to "Planning and Implementation," which received the highest score among all 40 standards reviewed.

Priority areas for improvement

There were five low performing areas. The lowest was the SPHS' commitment of financial resources to monitor health status, whereas the others ranked slightly higher and include:

- technical assistance to local health systems to:
    - develop monitoring systems
    - interpret and disseminate data;
- review of the effectiveness of the SPHS' efforts to monitor health status; and
- existence of professional expertise for monitoring health status.

EPHS #2: Diagnose and Investigate Health Problems and Hazards		
OVERALL SCORE: 70%	**RATING: Significant activity**	**RANK: 1 of 10**

Model Standard	Score
1. Planning and Implementation: Identifies and responds to public health threats (including: infectious disease outbreaks, chronic disease prevalence, environmental contaminations, etc.) by: • conducting state-wide surveillance; • maintaining the capability for enhanced surveillance in the event of an emergency; • promoting collaboration across labs to assure capacity to analyze specimens; and • investigating and responding to health problems and hazards.	82% Optimal activity
2. State-Local Relationships: Provides assistance to locals in: • epidemiologic analysis; & use of public health laboratory services; • distributing information on public health threats and appropriate local responses; and • conducting on-site visits to investigate disease outbreaks.	81% Optimal activity
3. Performance Management and Quality Improvement: Reviews effectiveness of performance in diagnosing and investigating health problems.	61% Significant activity
4. Public Health Capacity and Resources: Manages resources to diagnose and investigate threats by: • committing financial resources; • leveraging state assets; and • capitalizing on a workforce skilled in epidemiology and lab science to identify & analyze public health hazards.	58% Significant activity

This EPHS received the highest average score and therefore ranked number one among all 10 Essential Services in Arizona. The lowest score of 58 for "Capacity and Resources" exceeds the highest score received for six of the other EPHS, further illustrating the relative strength in this area.

Strengths

The highest scoring areas include the state public health system's:

- laboratories that have the capacity to analyze specimens in the event of a suspected exposure or disease outbreak;
- capacity to conduct investigations and respond to public health threats; and
- ability to provide laboratory assistance to local public health system partners.

Priority areas for improvement

There were four lower performing areas which include:

- organization of public and private laboratories into a well-functioning system;
- managing the performance of the SPHS' diagnostic and investigation activities;
- allocation of money to support diagnosing & investigating health problems; and
- coordination of efforts to diagnose & investigate health hazards across system partners.

EPHS #3: Inform, Educate, and Empower People about Health Issues		
OVERALL SCORE: 31%	**RATING: Moderate activity**	**RANK: 9 of 10**

Model Standard	Score
1. Planning and Implementation: Creates and communicates health promotion information and interventions using customer-centered & science-based strategies & maintains capacity for emergency communications.	47% Moderate activity
2. State-Local Relationships: Provides capacity building & resources to local public health systems to assist in their efforts to educate and empower people about health issues.	26% Moderate activity
3. Performance Management and Quality Improvement: Reviews the effectiveness of its performance in informing & empowering people about health issues.	25% Minimal activity
4. Public Health Capacity and Resources: Invests, manages & utilizes its human, information, organizational and financial resources to inform and empower people about health issues.	25% Minimal activity

Although a considerable amount of work is being undertaken around the state to inform and educate people about public health issues, participants reported that this is not being done in the most effective nor efficient manner.

Strengths

The highest relative scores were for "Planning and Implementation." Specifically, for activities related to the design and implementation of health education, communication and promotion interventions. However, it is important to note that these scores are low as compared to the rest of the SPHS activities, for which there remains a lot of work to be done to meet the Model Standard stated above.

Priority areas for improvement

The scores for three Model Standards were very low. The system as a whole needs to make a concerted effort to make improvements in the following areas:

- technical assistance and resources to local public health systems on health education & communication;
- systematic reviews of the effectiveness of health promotion activities; and
- allocation of financial resources, capacity building, and system-wide coordination for health communications, education, & promotion services.

EPHS #4: Mobilize Partnerships to Identify and Solve Health Problems		
OVERALL SCORE: 38%	**RATING: Moderate activity**	**RANK: 6 of 10**

Model Standard	Score
1. Planning and Implementation: Conducts statewide community-building practices to build partnerships towards identifying & solving health problems.	40% Moderate activity
2. State-Local Relationships: Assists local public health systems to build competencies in community development, advocacy, and leadership development, as well as provides incentives for building partnerships.	50% Moderate activity
3. Performance Management and Quality Improvement: Reviews the effectiveness of its partnerships and manages the performance of these partnerships for continuous quality improvement.	25% Minimal activity
4. Public Health Capacity and Resources: Manages resources to mobilize partnerships by: • committing resources; • aligning organizational relationships, and • leveraging a skilled workforce.	38% Moderate activity

Although the score for this EPHS ranked in the bottom half relative to the other 10 EPHS, it is important to note that a low score for the "Performance Management Standard" brought down the average score.

Strengths

The highest relative scores within this EPHS were for the State Public Health System's work on "State and Local Relationships," followed by "Capacity and Resources." Specifically, the high-scoring activities were:

- assistance and incentives for partnership development to local public health systems; and
- capacity for and coordination of efforts to mobilize partnerships.

However, it should be noted that these activities only received a score of "50," which is categorized as "Moderate activity." Therefore, although these areas were higher relative to other work *within* this EPHS, there remains a lot of work to be done by the SPHS to meet these Model Standards.

Priority areas for improvement

The following areas within the SPHS received lower scores:

- reviewing partnership development for quality improvement;
- actively managing and improving the performance of partnership activities;
- committing financial resources to sustain partnerships; and
- building statewide support for public health issues.

A collaborative effort needs to be made by the SPHS stakeholders to develop and implement an agenda of work to improve these under-performing areas.

EPHS #5: Develop Policies and Plans that Support Individual & Statewide Health Efforts		
OVERALL SCORE: 51%	**RATING: Significant activity (low)**	**RANK: 5 of 10**

Model Standard	Score
1. Planning and Implementation: Implements health improvement planning and policy development by: • convening partners and facilitating a statewide planning process; • producing a strategic statewide health improvement plan; • establishing & maintaining public health emergency response capacity; and • spearheading health policy development & its dissemination.	54% Significant activity
2. State-Local Relationships: Works with local public health systems to provide assistance and resources for local policy development.	51% Significant activity
3. Performance Management and Quality Improvement: Reviews effectiveness of its performance in policy & planning by: • conducting impact assessments of existing policy; • testing the preparedness response capacity; and • managing & monitoring performance of its policy & planning for quality improvement.	56% Significant activity
4. Public Health Capacity and Resources: Manages resources to develop policies and plans by: • committing adequate financial resources; • aligning organizational relationships; and • leveraging the skills of the workforce for strategic planning.	45% Moderate activity

Although the "Significant" rating for this EPHS appears relatively high, it must be noted that it is the lower end of this category; it is only two points above the "Moderate" category.

Strengths

There were two high performing activities, which were the SPHS' ability to conduct:

- policy development activities; and
- formal drills of the procedures linked to the "All-Hazards Preparedness Plan."

Priority areas for improvement

The majority of the scores for this EPHS were categorized as "Moderate activity." The lowest score was for the Model Standard "Capacity and Resources," which includes the following activities: (a) committing money for health planning and policy development, (b) aligning efforts across organizations, and (c) leveraging human resources to develop and engage the public in policy. Although the other three Model Standard activities did not rank much higher, the SPHS stakeholders should consider focusing their work on "Capacity and Resources" because this is where the largest opportunity for improvement exists.

EPHS #6: Enforce Laws and Regulations that Protect Health and Ensure Safety		
OVERALL SCORE: 56%	**RATING: Significant activity**	**RANK: 3 of 10**

Model Standard	Score
1. Planning and Implementation: Conducts enforcement activities based on current science by: • reviewing laws & regulations to align with current science; • soliciting input on existing & proposed laws & regulations; • fostering collaboration among regulators to support compliance and assure laws accomplish their safety purposes; and • ensuring customer-centered processes for licensure.	61% Significant activity
2. State-Local Relationships: Provides technical assistance to local public health systems and partners with local governing bodies to ensure the enforcement of local laws to protect health and safety.	55% Significant activity
3. Performance Management and Quality Improvement: Reviews effectiveness of its performance in enforcing health and safety laws.	59% Significant activity
4. Public Health Capacity and Resources: Manages resources to conduct enforcement activities by: • committing financial resources; • aligning organizations' work on law enforcement; and • leveraging the workforce to review, develop & enforce public health laws.	51% Significant activity

This is the only EPHS for which the participants considered "Significant activity" was underway. There were no outliers, indicating that the SPHS' work on enforcing laws to protect safety is relatively strong.

Strengths

Three scores were in the high end of "Significant activity"; specifically the SPHS' ability to:

- assure that laws give state & local authorities the power to prevent, detect & manage emergency health threats;
- foster cooperative relationships between the SPHS and regulators to encourage compliance; and
- review effectiveness of its regulatory, compliance, and enforcement activities.

Priority areas for improvement

The lowest relative score was "Capacity & Resources" (note, although this is the lowest score *within* this EPHS, it is still substantially higher than the overall assessment's lowest score of 24, seen in EPHS nine). These activities include the SPHS' ability to:

- commit money to enforce laws that protect health and ensure safety;
- coordinate efforts to comply with laws and regulations; and
- hire the professional expertise to carry out enforcement activities.

Moving forward, the SPHS should consider ways to provide training on how to enforce health and safety regulations to ensure that a robust cadre of professionals exists to carry out this work. In addition, an explicit effort should be made to increase collaboration among regulators to work towards increasing compliance.

EPHS #7: Link People to Needed Personal Health Services		
OVERALL SCORE: 34%	**RATING: Moderate activity**	**RANK: 8 of 10**

Model Standard	Score
1. Planning and Implementation: Assures the population has access to high quality personal health care by: • assessing availability & utilization of health services in Arizona, while paying special attention to underserved populations; • collaborating with local public health systems to deliver health services; • providing leadership to monitor, evaluate, & improve health delivery; and • working towards reducing disparities in health.	43% Moderate activity
2. State-Local Relationships: Provides technical assistance to local public health entities in: • improving systems to meet the health needs of underserved populations; and • strengthening the quality of health delivery.	29% Moderate activity
3. Performance Management and Quality Improvement: Reviews the effectiveness of its performance in addressing access, quality and appropriateness of health care.	26% Moderate activity (low)
4. Public Health Capacity and Resources: Manages resources to address access to care by: • Allocating an appropriate level of resources for healthcare; • aligning organizational resources; and • leveraging the skills of the workforce to improve health services.	36% Moderate activity

The participants considered that only a "moderate" amount of activity is underway for all of the Model Standards in this EPHS. Thus indicating there is a significant amount of work to be done. This includes the Model Standard "Planning and Implementation"; even though it was rated highest relative to the others *within* this EPHS, 43 percent indicates low performance when compared with the other areas covered in this assessment.

Strengths

For this EPHS, the three highest ranking activities of the SPHS were:

- assessing the availability of personal health services;
- eliminating barriers to access health services; and
- mobilizing assets, including local public health systems, to reduce disparities in health.

Priority areas for improvement

Activities within the Model Standards "State-Local Relationships" and "Performance Management" scored the lowest. Specifically:

- improvement is needed to strengthen technical assistance to local public health systems on methods to assess the needs of underserved populations and to the providers of these populations; and
- the SPHS is not adequately reviewing the access to, and quality of health services, nor its actions to link people to needed health services.

EPHS #8: Assure a Competent Public and Personal Health Care Workforce		
OVERALL SCORE: 35%	**RATING: Moderate activity**	**RANK: 7 of 10**

Model Standard	Score
1. Planning and Implementation: Identifies & meets the state's needs for a high quality public health workforce by: • assessing workforce needs and competencies; • establishing a statewide workforce development plan; • providing human resource development programs in leadership, management & cultural competency; and • encouraging life-long learning.	43% Moderate activity
2. State-Local Relationships: Supports local public health systems by: • assessing the needs of the local health workforce; • developing strategies to recruit, retain, & improve performance of the local workforce; and • providing training to enhance the skills of the local workforce.	33% Moderate activity
3. Performance Management and Quality Improvement: Reviews & improves workforce development activities by: • reviewing the implementation of workforce development plan; • reviewing the preparation of personnel entering the workforce; & • managing the performance of workforce development activities.	33% Moderate activity
4. Public Health Capacity and Resources: Manages resources in workforce development by: • committing financial resources; • aligning organizations' activities on workforce development; and • leveraging the workforce to ensure high quality healthcare.	30% Moderate activity

The foundation of a public health system is its workforce. The scores for this EPHS were relatively low, for which a comprehensive plan should be developed that would include: activities to encourage students early on to pursue a degree in public health; improving both undergraduate and graduate level public health training; offering more continuing education opportunities in public health; and scaling-up mentoring programs.

Strengths

The scores for "Planning and Implementation" were the highest relative to the other Standards for this EPHS. These activities include: assessing workforce needs, training the workforce, and providing continuous-learning. However, it is important to note that 43 percent is a relatively low score, indicating that the SPHS has a lot of work to do in order to meet the "gold standard" in this area.

Priority areas for improvement

There were several areas in the category "Minimal activity," which include:

- committing money to and review of workforce development efforts;
- coordinating workforce development efforts across the SPHS;
- availability of professionals required for workforce development activities;
- the extent to which academic-performance partnerships address preparedness of graduates to work in the SPHS; and
- assist local public health systems in developing & assessing their workforce.

EPHS #9: Evaluate Effectiveness, Accessibility, and Quality of Personal & Population-Based Health Services		
OVERALL SCORE: 25%	**RATING: Minimal activity**	**RANK: 10 of 10**

Model Standard	Score
1. Planning and Implementation: Conducts evaluations to improve the effectiveness of services by examining: • population-based & personal health services, using national guidelines; and • the performance of the SPHS in delivering the 10 Essential Public Health Services.	24% Minimal activity
2. State-Local Relationships: Assist local public health systems by: • providing technical assistance in evaluation methods; and • sharing evaluation results to inform strategic planning.	25% Minimal activity
3. Performance Management and Quality Improvement: Reviews the effectiveness of its performance in evaluation by: • assuring appropriateness in scope & methodology by using a national reference; and • managing performance of its evaluation activities.	25% Minimal activity
4. Public Health Capacity and Resources: Manages resources for evaluation activities by: • committing financial resources; • aligning organizations' efforts in evaluation; and • leveraging the skills of the workforce.	25% Minimal activity

This EPHS ranked last, indicating that the SPHS should make a concerted effort to identify a process for improving outcomes in this important area. It is likely that one reason why this EPHS ranked last is the lack of funding for evaluation. Therefore, one of the first steps would be to advocate for increased resources to evaluate public health programs and policies as part of a project management cycle of continuous learning and improvement.

<u>Strengths & Priority areas for improvement</u>

Unfortunately, all of the Model Standards for this Essential Service were scored as "Minimal activity." Therefore, a rigorous look should be taken to examine opportunities to improve and/or scale-up evaluation activities moving forward. This agenda should include resource mobilization for evaluation activities.

EPHS #10: Research for New Insights & Innovative Solutions to Health Problems		
OVERALL SCORE: 54%	**RATING: Significant activity**	**RANK: 4 of 10**

Model Standard	Score
1. Planning and Implementation: Identifies & participates in EPHS-focused research by: • establishing an academic-practice collaboration to foster innovation; • bridging the research community with the needs of the public health practice community; and • leveraging the use of effective methods for improving health.	61% Significant activity
2. State-Local Relationships: Assists local public health systems in their: • research activities, especially community-based participatory research; and • interpretation and application of findings.	52% Significant activity
3. Performance Management and Quality Improvement: Reviews the effectiveness of its performance in conducting and using research to inform innovative solutions to health problems by: • monitoring research activities for relevance; and • managing performance for quality improvement.	48% Moderate activity
4. Public Health Capacity and Resources: Manages resources for research by: • committing financial resources; • aligning organizations' efforts in evaluation; and • leveraging the skills of the workforce.	56% Significant activity

In a state that hosts four universities, one of which has a College of Public Health, several research entities and foundations focusing on health, as well as a burgeoning biotechnology industry, it is not surprising that the rating for work in the area of research and innovation was relatively high.

Strengths

The highest scores were for "Planning and Implementation" and "Capacity and Resources" and include the SPHS' work on:

- maintaining academic-practice collaborations to promote, organize and disseminate research findings;
- conducting relevant research; and
- employing professional expertise to conduct research.

Priority areas for improvement

The lowest scores include the SPHS' capacity to:

- review and manage/improve research activities;
- provide technical assistance to local public health systems to conduct research and act on the findings;
- align stakeholder research efforts; and
- commit financial resources to research to health improvement.

SECTION IV: NEXT STEPS

This report will be distributed widely because it is designed to be used as a building block towards improving the public health system in Arizona. In addition to providing a copy to each of the participants in the assessment process, it will be sent to all of our partner organizations across the state. Also, it will be available on the ADHS web site (www.azdhs.gov). A briefing of the results will be open to all ADHS employees.

One of the goals in conducting this assessment was to establish a baseline from which to prioritize our work in public health and measure improvement over the long-term. Having accomplished this, the next step would be to create a stewardship committee to brainstorm opportunities to translate this new information into action. Further, new partnerships would need to be built in order to work towards the end goal of improving the performance of the public health system in Arizona. Such a committee would be led by ADHS and comprised of a representative group of public health practitioners.

ADHS is committed to putting the results from this exercise into action. We plan to identify ways internally to follow up on the system's weaker areas of performance, in an effort to be proactive in preparing for the Department's future request for accreditation. It is our hope that others in the public health system will use the results in a similar way.

It is important to note that identifying opportunities for action will require a close look at the epidemiology, demography and growth potential of the state of Arizona. In other words, in addition to the "gold standard" approaches to each of the 10 Essential Services, the context of the population and its needs must be considered. For example, The United Health Foundation's "Health Rankings" report states that in comparison with other states, in Arizona the rate of cancer and cardiovascular deaths is low and in addition the prevalence of obesity is relatively low. However, relative to other states the uninsured population is high (21%), immunization coverage of children ages 19-35 months is low (75%), and there is limited access to primary care and prenatal care. [3] In addition, the unprecedented population growth is putting increasing pressure on our scarce public health infrastructure and health workforce. Thus, this type of epidemiological data must be included in plans to address the relative strengths and weaknesses of the public health system in order for them to be effective.

In conclusion, implementing this assessment process has provided tremendous information to ADHS and our system partners, and was a first step towards improving communication across stakeholders. The results should be relied upon to focus attention and resources on the areas of greatest need. It is our hope that all public health stakeholders view this information as relevant and important, as we do at ADHS. We are very excited about this endeavor and ADHS will continue to generate and maintain the momentum of this process by engaging a multitude of system partners and taking action on the results.

[3] The United Health Foundation. 'America's Health Rankings: A Call to Action for People and their Communities'. Visited on May 28, 2008 at: http://www.unitedhealthfoundation.org/media2007/shrmediakit/ahr2007.pdf

APPENDIX I
ACKNOWLEDGEMENTS

Without the guidance and assistance of many ADHS staff, the identification of key stakeholders for this process would not have been possible.

Susan Gerard, ADHS Director
Anne Hartley, Division of Behavioral Health Services
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Bré Thomas, Division of Behavioral Health Services
Brenda Robbins, Division of Behavioral Health Services
Carol Vack, Local Health Liaison
Ed Armijo, Bureau of Emergency Medical Services & Trauma System
Fabian Valle, Bureau of Health Systems Development
Jeanette Shea-Ramirez, Public Health Prevention
Karen Lewis, Office of Infectious Disease Services
Karen Sell, Bureau of USDA and Nutrition Services
Ken Komatsu, Bureau of Epidemiology and Disease Control
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Margie Tate, Bureau of Chronic Disease Prevention and Control
Mary Wiley, Division of Licensing Services
Michael Allison, Native American Liaison
Mike Fronske, Division of Behavioral Health Services
Patricia Tarango, Bureau of Health Systems Development
Ramona Rusinak, Healthy Aging Liaison
Richard Porter, Health Statistics
Robert Guerrero, Office of Border Health
Terry Mullins, Bureau of Emergency Medical Services & Trauma System
Vicki Conditt, Bureau of Emergency Medical Services & Trauma System
Will Humble, Public Health Preparedness and Response

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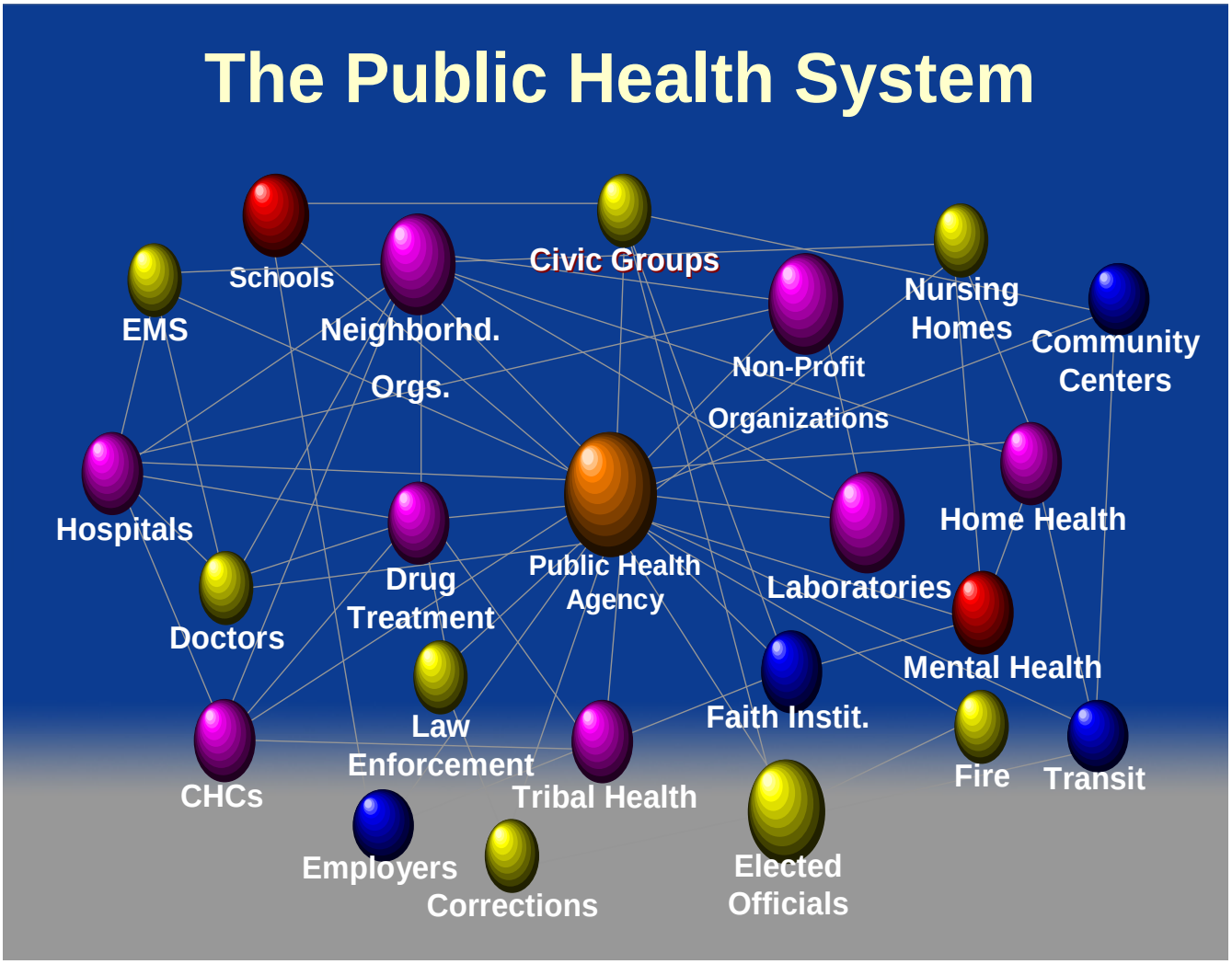
APPENDIX II


The Public Health System
Schools
Civic Groups
EMS
Neighborhd.
Orgs.
Nursing
Homes
Community
Centers
Non-Profit
Organizations
Hospitals
Home Health
Drug
Treatment
Public Health
Agency
Laboratories
Doctors
Mental Health
Law
Enforcement
Faith Instit.
CHCs
Tribal Health
Fire
Transit
Employers
Corrections
Elected
Officials

APPENDIX III: PARTICIPANT EVALUATION

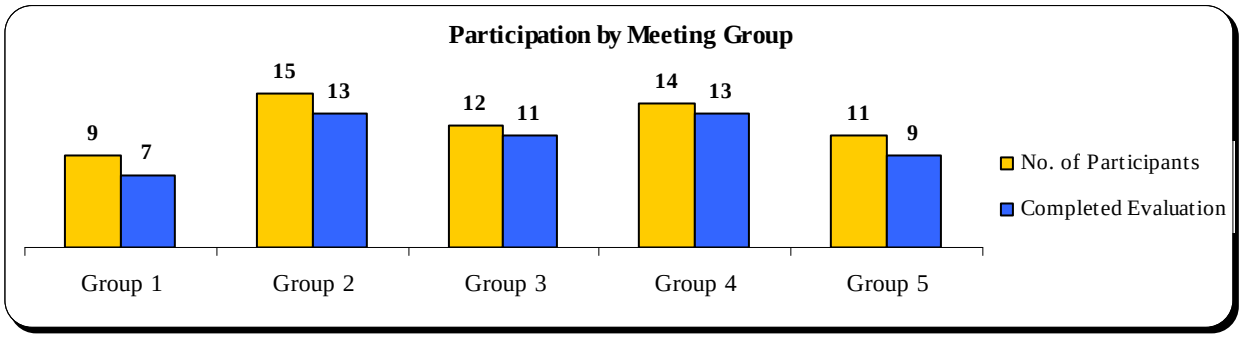
This section presents a summary of the results from participant evaluations. The primary purpose of the evaluations was to provide the facilitator and recorders with immediate feedback on what worked, what did not work, and opportunities to improve the process. Throughout the five sessions, participant comments were used to make modifications to ensure maximum comprehension, relevancy, and acceptability of the activities. It is hoped that the overall assessment findings, participant comments, and lessons learned will be valuable to other states interested in utilizing a similar method of conducting the NPHPSP at the state level.

Findings

Overall the results of the participant evaluations were positive on all five questions. It was clear from participant comments and written evaluations, that a majority of participants enjoyed the experience and felt that the process was beneficial. At times, the participants expressed frustration with the assessment instrument (an example being double-barreled questions), and lack of adequate time to engage in more in-depth dialogue regarding activities occurring within the system around each Model Standard.

Sixty-one stakeholders representing a variety of public health system entities participated in this assessment. Of these 61 participants, 53 completed the one-page evaluation form representing an 87 percent response rate. Figure 1, shows the number of participants that completed an evaluation form in each of the five groups.

Figure 1: Evaluations Completed by Participants



Participants were asked a set of five questions to rate the assessment process. Scores were designated as "1" being "very poor" and "5" being “excellent.” The average scores were calculated and are presented below:

Area in Question	Average Score
1. Meeting Organization	4.7
2. Meeting Facilitation	4.7
3. The Voting Process – The process used to vote on the performance standards was sufficient.	4.1
4. Discussion Time – The time allotted for discussion of the performance standards was sufficient.	3.9
5. Overall Evaluation-- Overall, this meeting was successful in assessing how Arizona is doing in meeting the National Public Health Performance Standards.	4.0

The “voting process” and “discussion time” were areas that received modest scores. It should be noted that ADHS opted to conduct the assessment meetings in a shorter timeframe, one hour per EPHS, than recommended by the NPHPSP. The recommended timeframe is two hours per EPHS for the state instrument. Due to the consolidated agenda, the necessity of additional discussion time was echoed throughout the five meetings.

The summary of evaluation findings below provides comments provided by the participants that help to explain the evaluation scores and reactions to the assessment process.

Concluding comments on participant evaluation

The participant evaluation aimed to assess satisfaction with the process of conducting the NPHPSP state public health system assessment. Overall, results demonstrate that participants were pleased with the meeting organization and facilitation. Most respondents highlighted that the meeting was well-run. However, in some cases the experience presented challenges related to the scoring system used, and disparity in the representation of public health system partners at the table. Lessons learned from this process indicate that a thorough explanation of the scoring method may be helpful in setting the stage for the assessment, and a minimum of two hours per EPHS is highly encouraged.

Summary of Evaluation Findings

	What Worked	What Did Not Work	Recommended Improvements
Meeting Organization	Well organized.		More details with initial handout information.
	Very efficient.		Need for contextualizing process. More detail on what other groups (during previous assessment sessions) have completed.
Meeting Facilitation	Facilitator made sure we stayed on task with revisiting the overall goals and reminder of stem question.	Too rushed, not enough discussion time.	Need to provide a more thorough explanation of the purpose of these meetings and assessment.
	Facilitator moved the process along without cutting folks off.	Very good, but forced to rush through.	
Voting Process	Handout of percentages and colors – clear/nice process on voting cards.	Not enough time for discussion to understand the issue & its activities.	Clearly explain the context and perspective we should be taking when voting.
		Too rushed without adequate background information presented ahead of time.	The instrument questions and options for voting do not allow for sufficient specificity. There should be a “Don’t Know” voting option.

Discussion Time	Seemed reasonable given time constraints.	Some items not discussed as clearly.	Could have used more time.
		Virtually no time for thoughtful discussion.	Some standards could have benefited from further discussion and clarification on language.
Overall	Well done within the time constraints; diverse group brought together.	Not enough time to find out if there are things happening that we didn't know or could guess.	Maybe speak more of what public health is – what part of the system do we represent.
	Well run meeting.	Concern that the group did not represent the state public health system as a whole.	The number of questions could be narrowed down to a more concise exercise.
	Eye opener – we work in silos, we need to work together.	The process was good, the tool extremely frustrating.	Very good effort, but should be used only as a starting point, the gut-level reactions of knowledgeable people, not in any way an actual evaluation.